

APPENDIX I



Client Data Structures

ClientId: LANaddress (* any unique 48 bit ID for the client *);

VlanList: LIST of VlanRecord

VlanRecord:

Vlanid: OCTET; (* identifier used to match Vlan's at server*)

VlanName: SimpleName (* local Name for Vlan *)

Type: OCTET (* encodes type of protocols supported on this Vlan *)

Server: SimpleName (* name for server *)

State: (OFF, ON, TypeMismatch, IdMismatch, ServerFailure)

AssignedLink: Link Number; (* link assigned to Vlan*)

ServerList: LIST of ServerRecord

ServerRecord:

Links: SET of LinkNumber; (* physical links connecting to server *)

LiveLinks: SET of LinkNumber; (* subset of links that are up *)

State: (OFF, ON, MultipleServers, NotFullDuplex)

PortMappingList: LIST of PortRecords

(* each port on a Vlan may correspond to multiple ports on physical *)

(* links corresponding to this vlan at the client. For each mapping between *)

(* a port on a Vlan and a physical link port we keep a port record *)

PortRecord:

VlanId: OCTET; (* identifier used to match Vlan's at server *)

VirtualPort: OCTET; (* port on Vlan *)

Specifier: SimpleName (* specifies protocols received on ports *)

LinkPort: OCTET; (* port on physical link *)

Link: LinkNumber; (* link on which LinkPort is a port *)

LinkArray: ARRAY[1..Links] of LinkRecord

LinkRecord:

ServerId: LANAddress

ConnectId: INTEGER (* 32 bit integer *)

SequenceNumber: INTEGER-64 (* 64 bit integer *)

State: (REQ, ON)

SourceVlanTable (*table mapping source addresses to Vlans *)

ClientAddresses: SET of LANAddress (* 48 bit IDs of all VML clients *)